



**BANDIT**

MODEL 2405



**STAMPEDE**

MODELS 3605



**RUSTLER**

MODELS 3705

**TRAXXAS**  
OWNERS MANUAL

# INTRODUCTION

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Thank you for purchasing a Traxxas electric model. This manual covers the Rustler® stadium race truck, the Bandit™ buggy, and the Stampede® monster truck. No matter which one you have selected, we are confident you will appreciate the latest performance and appearance enhancements that have been made to these legendary models. With a powerful Titan® 12T 550 motor and a smooth XL-5 electronic speed control, Rustler, Bandit and Stampede are built for high-speed action. The new wheels and tires feature the latest tread patterns and rubber compounds for superb driving. Even innovative technology from our top-of-the-line Revo® has found its way into Rustler, Bandit, and Stampede in the form of the patent-pending Torque-Control™ slipper.

This manual contains the instructions you will need to operate, and maintain your model so that you can enjoy it for years to come. We want you to feel confident that you own one of the best-performing models in the market and that it is backed by a team of professionals who aim to provide the highest level of factory support possible. Traxxas models are about experiencing total performance and satisfaction, not just with your model, but also with the company that stands behind it.

We know you're excited about getting your new model on the road, but it's very important that you take some time to read through the Owners Manual. This manual contains all the necessary set-up and operating procedures that allow you to unlock the performance and potential that Traxxas engineers designed into your model. **Even if you are an experienced R/C enthusiast, it's important to read and follow the procedures in this manual.**

Thank you again for going with Traxxas. We work hard every day to assure you the highest level of customer satisfaction possible. We truly want you to enjoy your new model!

## Traxxas Support

Traxxas support is with you every step of the way. Refer to the next page to find out how to contact us and what your support options are.



## Quick Start

This manual is designed with a Quick Start path that outlines the necessary procedures to get your model up and running in the shortest time possible. If you are an experienced R/C enthusiast you will find it helpful and fast. Be sure and read through the rest of the manual to learn about important safety, maintenance, and adjustment procedures. Turn to page 9 to begin.



## BEFORE YOU PROCEED

Carefully read and follow all instructions in this and any accompanying materials to prevent serious damage to your model. Failure to follow these instructions will be considered abuse and/or neglect.

Before running your model, look over this entire manual and examine the model carefully. If for some reason you decide it is not what you wanted, then do not continue any further. **Your hobby dealer absolutely cannot accept a model for return or exchange after it has been run.**

### WARNINGS, HELPFUL HINTS, & CROSS-REFERENCES

Throughout this manual, you'll notice warnings and helpful hints identified by the icons below. Be sure to read them!



An important warning about personal safety or avoiding damage to your model and related components.



Special advice from Traxxas to make things easier and more fun.



Refers you to a page with a related topic.

### SUPPORT

If you have any questions about your model or its operation, call the Traxxas Technical Support line toll-free at:  
**1-888-TRAXXAS (1-888-872-9927)\***

Technical support is available Monday through Friday from 8:30am to 9:00pm central time. Technical assistance is also available at [www.Traxxas.com](http://www.Traxxas.com). You may also e-mail customer support with your question at [support@Traxxas.com](mailto:support@Traxxas.com). Join thousands of registered members in our online community at [Traxxas.com](http://Traxxas.com).

Traxxas offers a full-service, on-site repair facility to handle any of your Traxxas service needs. Maintenance and replacement parts may be purchased directly from Traxxas by phone or online at [www.BuyTraxxas.com](http://www.BuyTraxxas.com). You can save time, along with shipping and handling costs, by purchasing replacement parts from your local dealer.

Do not hesitate to contact us with any of your product support needs. We want you to be thoroughly satisfied with your new model!

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## SAFETY PRECAUTIONS



All instructions and precautions outlined in this manual should be strictly followed to ensure safe operation of your model.



This model is not intended for use by children under 8 years of age without the supervision of a responsible and knowledgeable adult.



No previous experience with radio controlled models is required. Models require a minimum of setup, maintenance, or support equipment.

All of us at Traxxas want you to safely enjoy your new model. Operate your model sensibly and with care, and it will be exciting, safe, and fun for you and those around you. Failure to operate your model in a safe and responsible manner may result in property damage and serious injury. The precautions outlined in this manual should be strictly followed to help ensure safe operation. You alone must see that the instructions are followed and the precautions are adhered to.

### IMPORTANT POINTS TO REMEMBER

- ☛ Your model is not intended for use on public roads or congested areas where its operation can conflict with or disrupt pedestrian or vehicular traffic.
- ☛ Never, under any circumstances, operate the model in crowds of people. Your model is very fast and could cause injury if allowed to collide with anyone.
- ☛ Because your model is controlled by radio, it is subject to radio interference from many sources that are beyond your control. Since radio interference can cause momentary losses of radio control, always allow a safety margin in all directions around the model in order to prevent collisions.
- ☛ The motor, battery, and speed control can become hot during use. Be careful to avoid getting burned.
- ☛ Don't operate your model at night, or anytime your line of sight to the model may be obstructed or impaired in any way.
- ☛ **Most importantly, use good common sense at all times.**

## TOOLS, SUPPLIES AND REQUIRED EQUIPMENT

Your model comes with a set of specialty metric tools. You'll need to purchase other items, available from your hobby dealer, to operate and maintain your model.

### SUPPLIED TOOLS AND EQUIPMENT



2.0mm "L" wrench



1.5mm "L" wrench



Turnbuckle wrenches



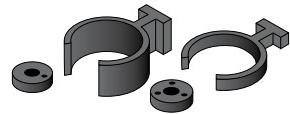
U-joint wrench



4-way wrench



Aftermarket servo adapters



Various pre-load spacers and shock pistons (on plastic sprue) *see page 20*



Battery pad (to reduce battery vibration, if necessary)



Various replacement screws



Body clips and body washers

### REQUIRED TOOLS AND EQUIPMENT (SOLD SEPARATELY)



8 AA alkaline batteries



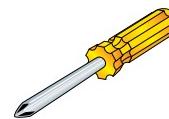
NiCad or NiMH 7.2V to 8.4V 6 or 7-cell battery pack



NiCad or NiMH battery charger



Hobby knife



Philips screwdriver



Small flat-blade screwdriver



For more information on batteries, see *Use the Right Batteries* on page 13.



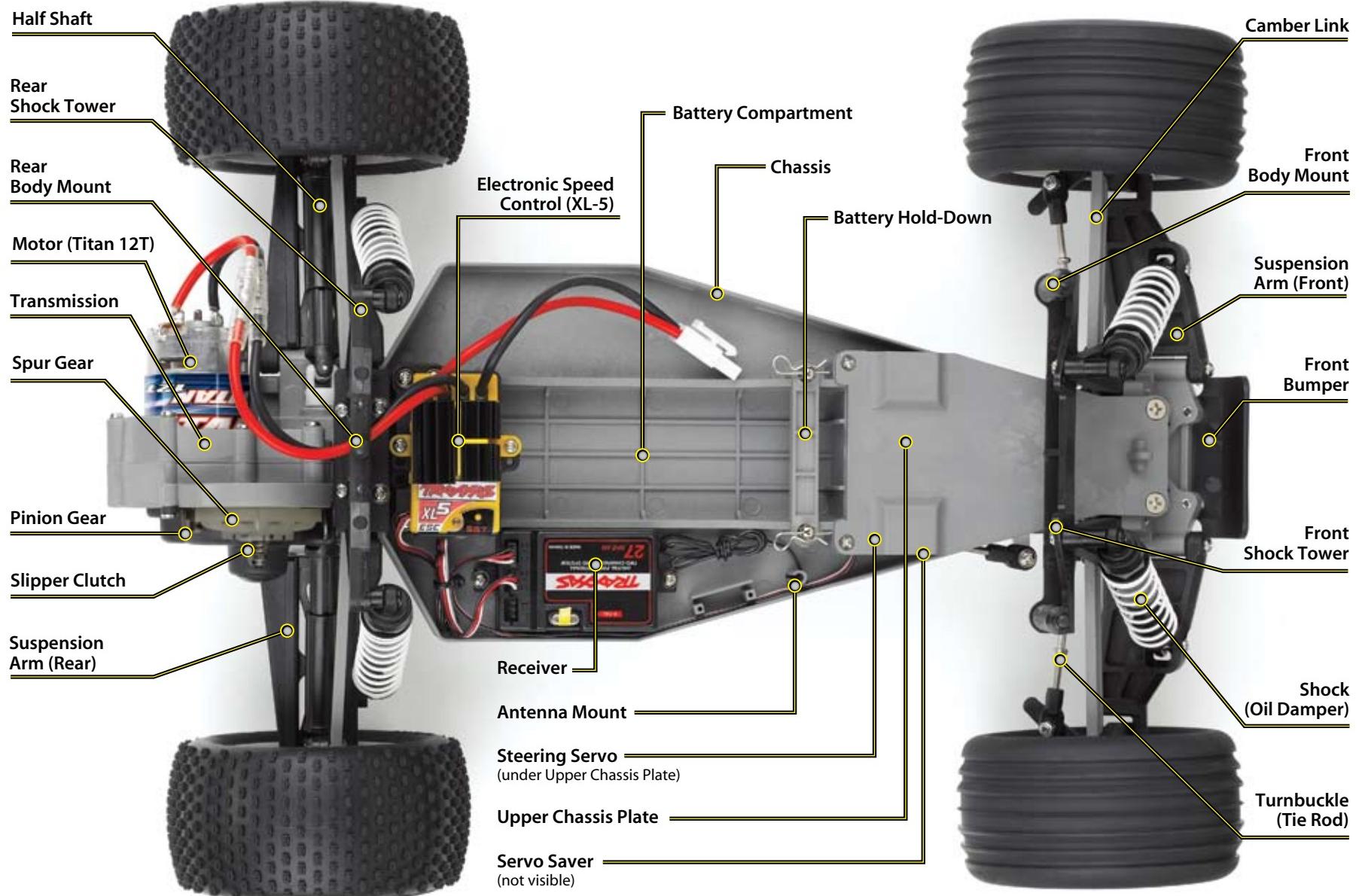
A peak-detecting charger is recommended for best performance and longest battery life. For more information, see *Use the Right Charger* on page 12.



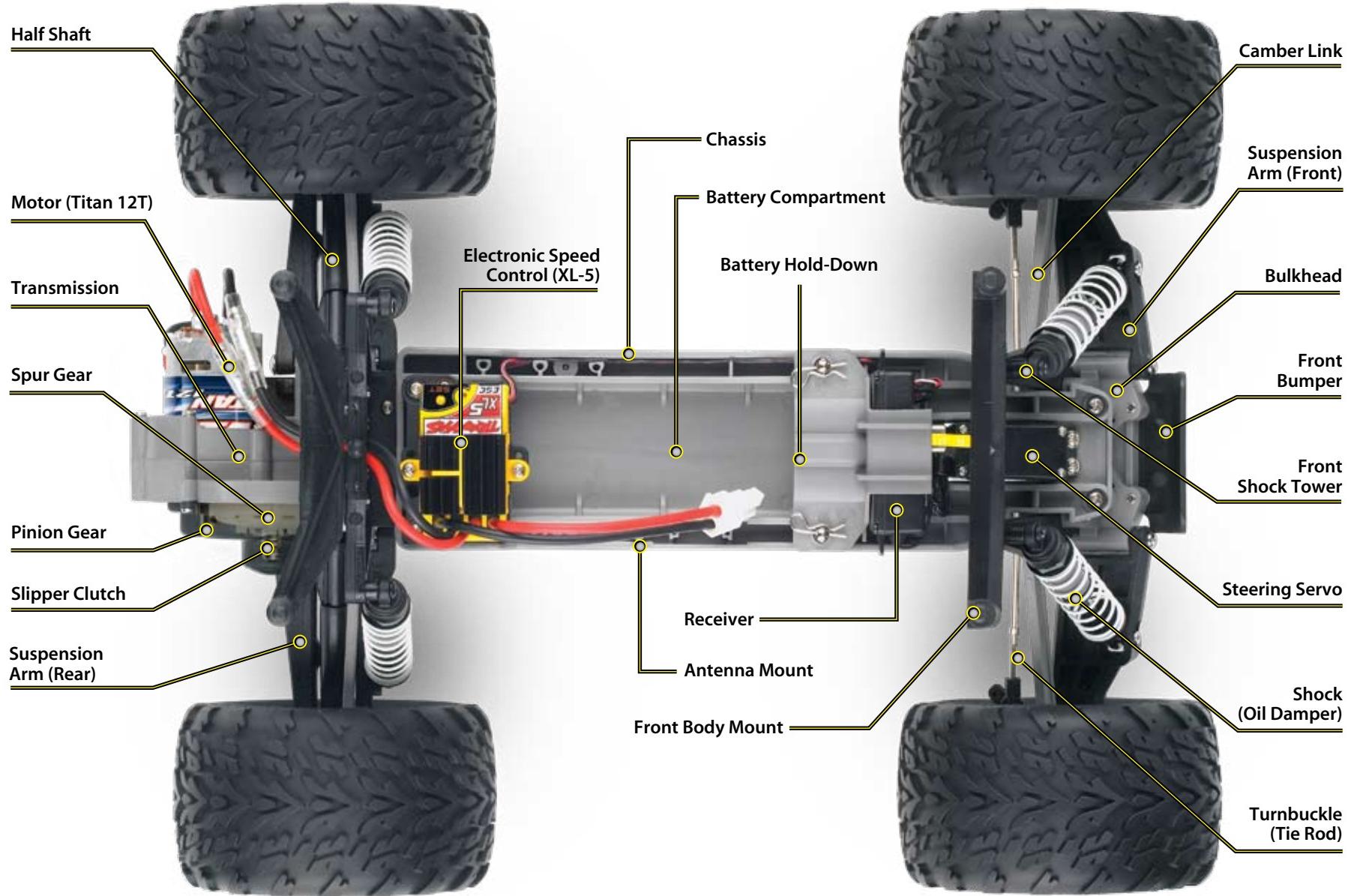
**Recommended Equipment**  
These items are not required for the operation of your model, but are a good idea to include in any R/C toolbox:

- Safety glasses
- Thin, hobby-quality cyanoacrylate instant tire glue (CA glue)
- Side cutters or needle nose pliers

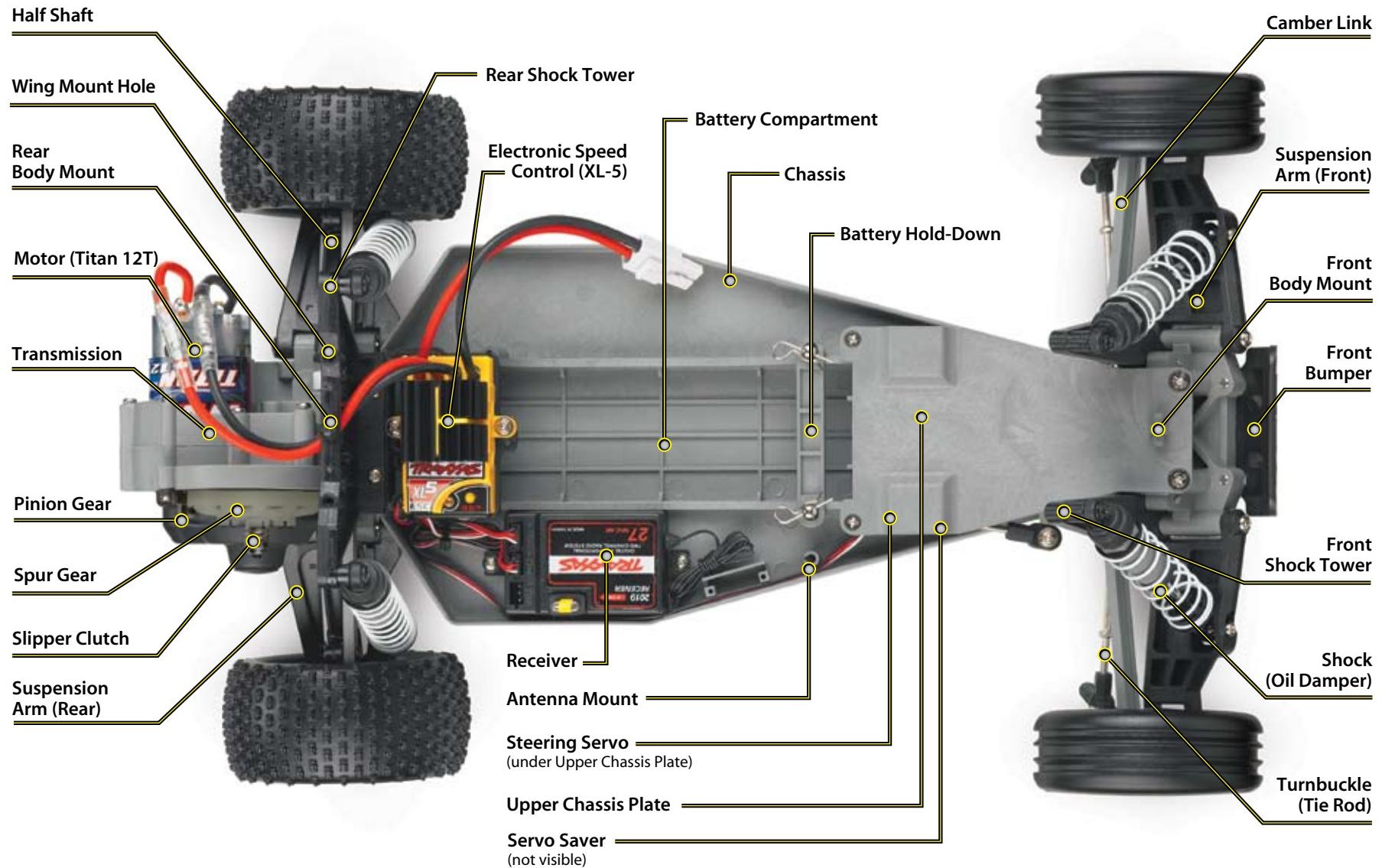
## ANATOMY OF THE RUSTLER



## ANATOMY OF THE STAMPEDE



## ANATOMY OF THE BANDIT



## QUICK START: GETTING UP TO SPEED

The following guide is an overview of the procedures for getting your model running. Look for the Quick Start logo on the bottom corners of Quick Start pages.

**1. Read the safety precautions on page 4**

For your own safety, understand where carelessness and misuse could lead to personal injury.

**2. Charge the battery pack • See sidebar, page 12**

Fully charge a 7.2-volt battery pack (not included). Charge your battery now so it will be ready when you finish the other setup procedures.

**3. Install the antenna • See page 14**

Install the antenna mast in the model.

**4. Install batteries in the transmitter • See page 13**

The transmitter requires 8 AA alkaline or rechargeable batteries.

**5. Install battery pack in the model • See page 13**

Your model requires a fully charged 7.2-volt battery pack (not included).

**6. Turn on the radio system • See page 16**

Make a habit of turning the transmitter on first, and off last.

**7. Check servo operation • See page 16**

Make sure the steering servo is working correctly.

**8. Range test the radio system • See page 16**

Follow this procedure to make sure your radio system works properly at a distance and that there is no interference from outside sources.

**9. Detail your model • See page 10**

Install wings (if necessary) and apply other decals if desired.

**10. Drive your model • See page 19**

Driving tips and adjustments for your model.

**11. Maintaining your model • See page 22**

Follow these critical steps to maintain the performance of your model and keep it in excellent running condition.



The Quick Start Guide is not intended to replace the full operating instructions available in this manual. Please read this entire manual for complete instructions on the proper use and maintenance of your model.



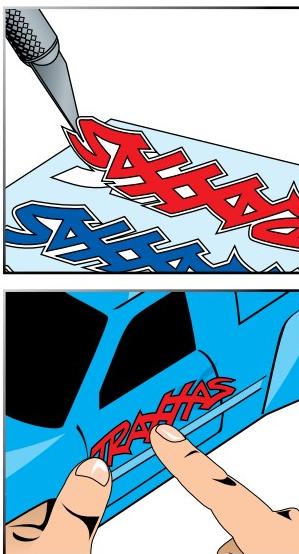
Look for the Quick Start logo at the bottom of Quick Start pages.

## DECORATING YOUR MODEL

### APPLYING THE DECALS

The main decals for your model have been applied at the factory. The decals are printed on self-adhesive clear mylar and are die-cut for easy removal. Use a hobby knife to lift the corner of a decal and lift it from the backing. To apply the decals, place one end down, hold the other end up, and gradually smooth the decal down with your finger as you go. This will prevent air bubbles. Placing both ends of the decal down and then trying to smooth it out will result in air pockets.

Look at the photos on the box for typical decal placement.



### ATTACHING THE RUSTLER WING

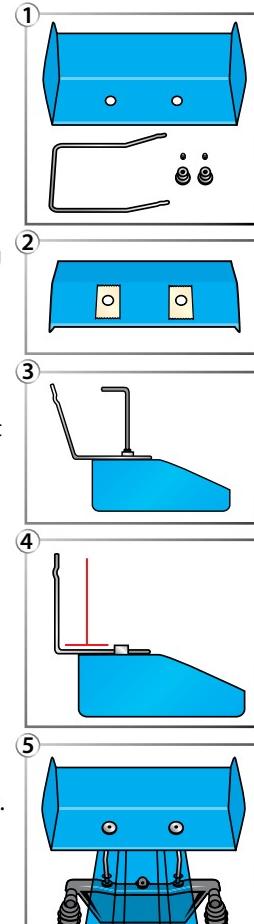
Use the double-sided tape pre-applied to the wing to secure the wing to the Rustler body.



### INSTALLING THE BANDIT WING

The Bandit wing comes pre-installed. The instructions here are to show you how to install a replacement wing in the future.

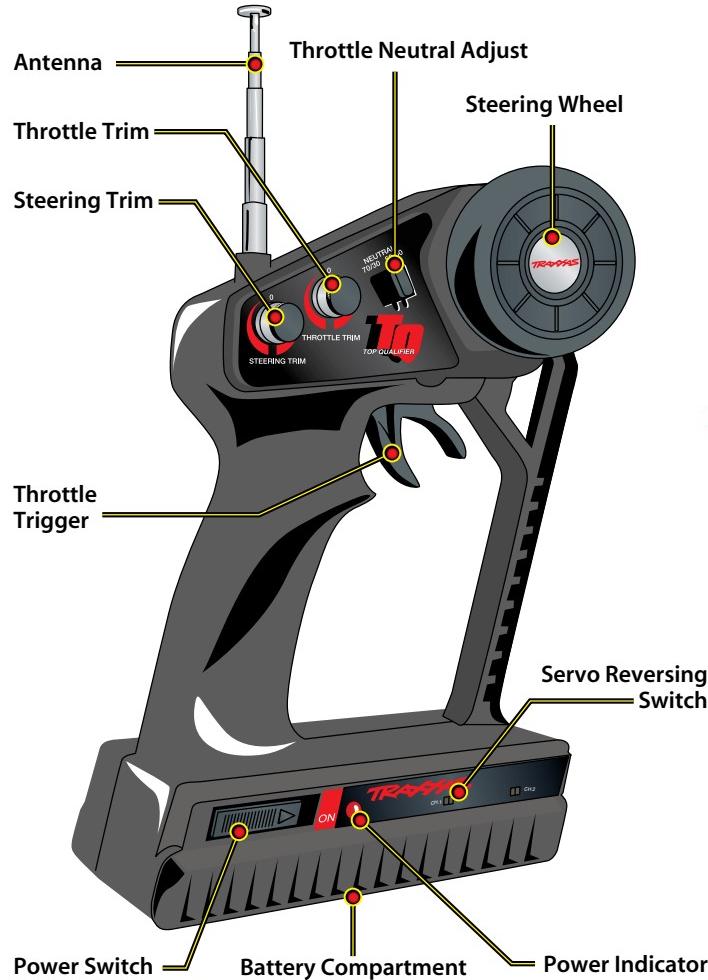
1. Locate the wing, wing buttons, wing wire, and two 3mm set screws.
2. Use masking tape to protect the bottom of the painted wing from scratches when installing the wing wire. Cut a hole in the tape for the wing buttons and push the aluminum wing buttons through the holes.
3. Carefully insert the wing wire through the holes in the wing buttons. Secure the wing wire by installing the 3mm set screws into the wing buttons.
4. Make sure the ends of the wing wire are perpendicular to the bottom of the wing. If necessary, bend the wing wire so the ends are perpendicular to the bottom of the wing.
5. Insert the wing through the holes in the body and into the holes in the top of the shock tower. If the wing is loose, spread the ends of the wire out so that the wing fits tighter in the holes. Adjust the wing by bending it up or down, as required.



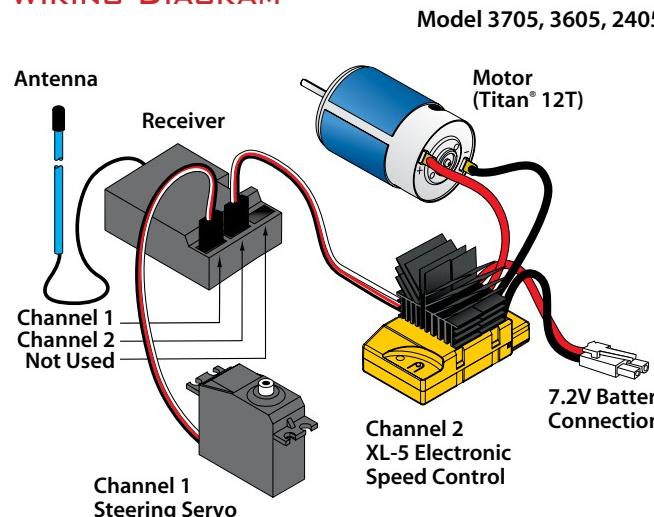
## THE TRAXXAS TQ RADIO SYSTEM

Your model is equipped with the Traxxas TQ Radio System. The Traxxas TQ Radio System is a 2-channel system that provides high-power output up to a quarter mile. Models 3605, 3705 and 2405 use one servo and an electronic speed control.

### TQ TRANSMITTER

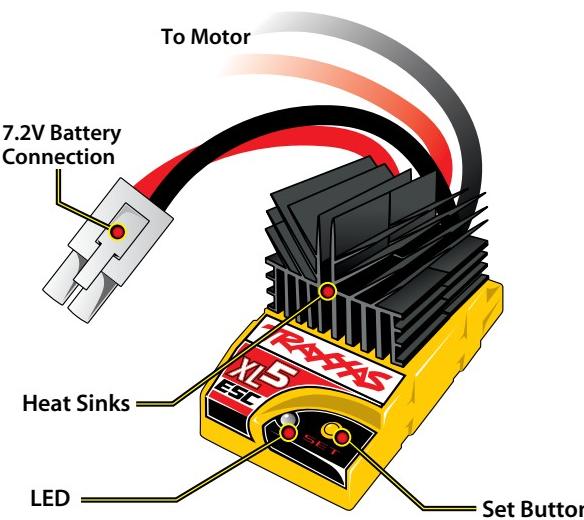


### WIRING DIAGRAM



Model 3705, 3605, 2405

### XL-5 ELECTRONIC SPEED CONTROL



**Use the Right Charger**

The most convenient type of charger is an AC peak-detecting charger that plugs directly into an AC wall outlet. It contains special peak-detection circuitry that automatically shuts the charger off when the battery is fully charged.

If you're using a 15-minute timed charger, always fully discharge the battery pack before each charge. Some high mAh battery packs (1500 mAh or higher) require more than the standard 15 minutes of charge time. If the battery pack is cold after 15 minutes of charging, add another 5 minutes of charge time. Closely monitor the battery pack and stop charging it when it begins to feel warm to the touch. Never leave a battery charging unattended. Always follow charger manufacturer's instructions.

**RADIO SYSTEM TERMINOLOGY**

Please take a moment to familiarize yourself with these radio-system terms. They will be used throughout this manual.

**BEC (Battery Eliminator Circuit)** - The BEC can either be in the receiver or in the ESC. This circuit allows the receiver and servos to be powered by the main battery pack in an electric model. This eliminates the need to carry a separate pack of 4 AA batteries to power the radio equipment.

**Channel** - The 27 MHz frequency band is divided into 6 channels so that up to six models can be operated simultaneously. Each channel is referred to by its flag color and channel number, as shown below.

CHANNEL	FREQUENCY BAND	FLAG COLOR	TRAXXAS PART NO.
1	26.995	BROWN	2031
2	27.045	RED	2032
3	27.095	ORANGE	2033
4	27.145	YELLOW	2034
5	27.195	GREEN	2035
6	27.255	BLUE	2036

**Clearing your frequency** - A routine, verbal check to make sure nobody else in your area is operating on the same channel. Always clear your frequency by calling out your channel number before operating your model. Wait or move to another area if your channel is already being used.

**Crystal (X-tal)** - The plug-in device that determines which channel the radio system will operate on. For each channel, there are two crystals, one for the receiver and one for the transmitter. Of those two crystals, the one marked with the lower number (.455 MHz lower) must be inserted into the receiver.

**ESC (Electronic Speed Control)** - An electronic speed control is the electronic motor control inside the model. The XL-5 uses MOSFET power transistors to provide precise, digital proportional throttle control. Electronic speed controls use power more efficiently than mechanical speed controls so that the batteries run longer. An electronic speed control also has circuitry that prevents loss of steering and throttle control as the batteries lose their charge.

**Frequency band** - The radio frequency used by the transmitter to send signals to your model. All Traxxas RTR models operate on a 27 MHz frequency band.

**mAh** - Abbreviation for milliamp hour. A measure of the capacity of the battery pack. The higher the number, the longer the battery will last between recharges.

**MSC (Mechanical Speed Control)** - A mechanical speed control is a servo driven throttle regulator. Mechanical speed controls use resistors to regulate battery power to the motor.

**Neutral position** - The standing position that the servos seek when the transmitter controls are at the neutral setting.

**NiCad** - Abbreviation for nickel-cadmium. The original rechargeable hobby pack, NiCad batteries have very high current handling, high capacity, and can last up to 1000 charging cycles. Good charging procedures are required to reduce the possibility of developing a "memory" effect and shortened run times.

**NiMH** - Abbreviation for nickel-metal hydride. Rechargeable NiMH batteries offer high current handling, and much greater resistance to the "memory" effect. NiMH batteries generally allow higher capacity than NiCad batteries. They can last up to 500 charge cycles. A peak charger designed for NiMH batteries is required for optimal performance.

**Receiver** - The radio unit inside your model that receives signals from the transmitter and relays them to the servos.

**Servo** - Small motor unit in your model that operates the steering mechanism.

**Transmitter** - The hand-held radio unit that sends throttle and steering instructions to your model.

**Trim** - The fine-tuning adjustment of the neutral position of the servos, made by adjusting the throttle and steering trim sliders on the face of the transmitter.

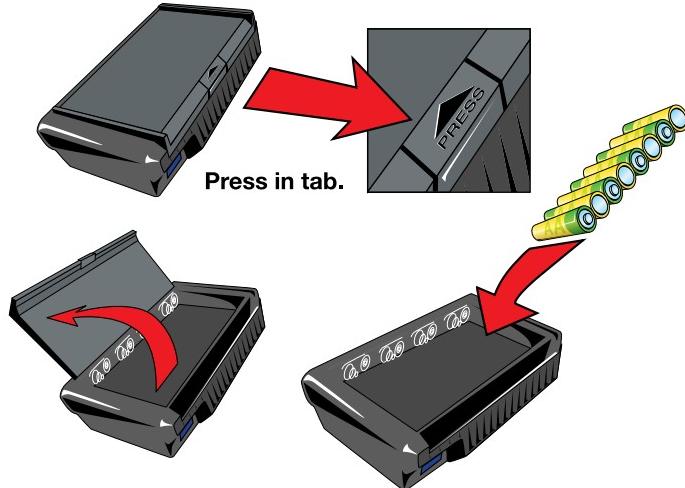
**Thermal Shutdown Protection** - Temperature sensing electronics are used in the ESC to detect overloading and overheating of the transistor circuitry. If excessive temperature is detected, the unit automatically shuts down to prevent damage to the electronics.

**2-channel radio system** - The TQ radio system, consisting of the receiver, the transmitter, and the servos. The system uses two channels: one to operate the throttle and one to operate the steering.

**550 and 540** - These numbers refer to the size of the motor. 550 motors have armatures that are 30% longer than 540 motors.

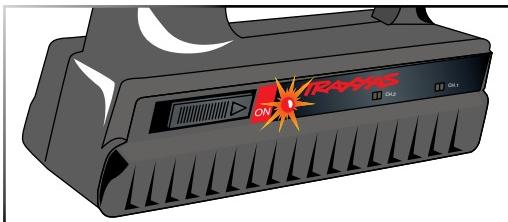
**INSTALLING TRANSMITTER BATTERIES**

Your TQ transmitter uses 8 AA batteries. The battery compartment is located in the base of the transmitter.

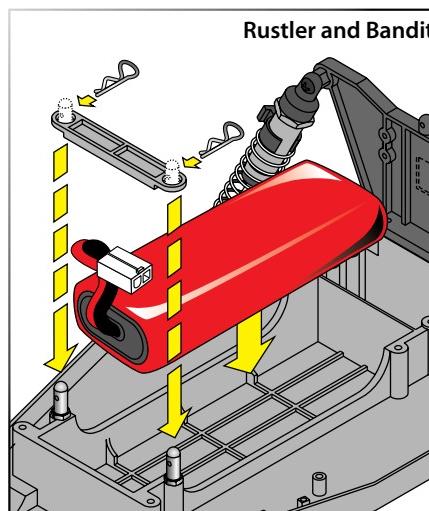
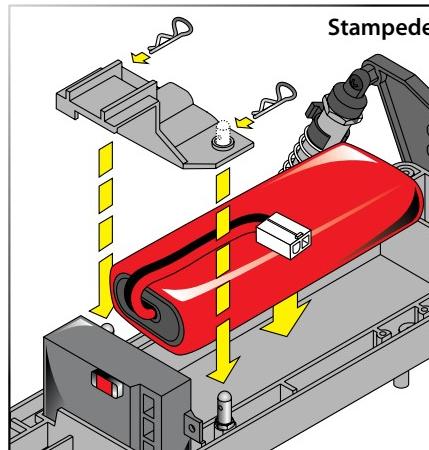


1. Remove the battery compartment door by pressing the tab and lifting the door up.
2. Install the batteries in the correct orientation as indicated in the battery compartment.
3. Reinstall the battery door and snap it closed.
4. Turn on the transmitter and check the power indicator for a solid red light.

If the power indicator light flashes, then the transmitter batteries are weak, discharged or possibly installed incorrectly. Replace with new or freshly charged batteries. The power indicator light does not indicate the charge level of the battery pack installed in the model.

**Installing the Battery Pack**

Place the battery pack into the battery compartment of the model and then place the battery hold-down over the posts. Secure the battery hold-down with body clips in the holes in the posts. Do not connect the battery pack yet. **Note:** On Stampede, the battery wire should route under the hump in the battery hold-down and make sure the receiver is secured by the battery hold-down.

***Use the Right Batteries***

Your transmitter uses AA batteries. Use new alkaline batteries, or rechargeable batteries such as NiCad or NiMH (Nickel Metal Hydride) batteries in your transmitter. Make sure rechargeable batteries are fully charged according to the manufacturer's instructions.

If you use rechargeable batteries in your transmitter, be aware that when they begin to lose their charge, they lose power more quickly than regular alkaline batteries.

**Caution:** Discontinue running your model at the first sign of weak batteries (flashing red light) to avoid losing control.



If the power indicator doesn't light red, check the polarity of the batteries. Check rechargeable batteries for a full charge.



Spray a little window cleaner on the antenna wire to make it easier to push through the antenna tube.



If there are any kinks in the black antenna wire, it will be more difficult to push through the antenna tube. Pull the wire straight by sandwiching it between your thumb and index finger and running your fingers along the length of the wire (with medium pressure).



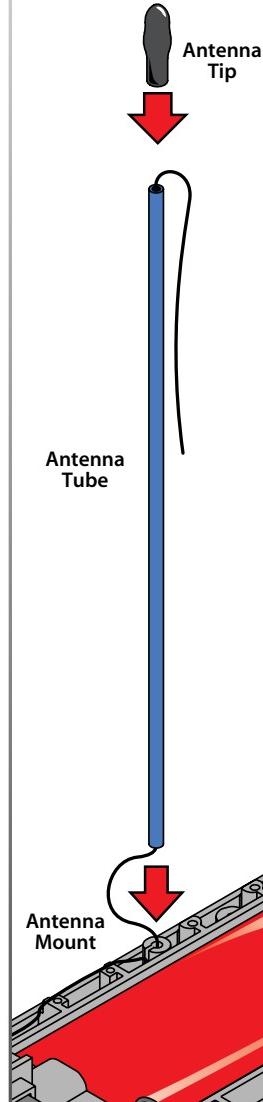
Don't shorten the length of the antenna wire. Its length is tuned to the frequency band; cutting it could severely shorten the radio system's range.



Don't push the transmitter antenna down from the top. Pull it down from the bottom, one segment at a time, to prevent binding and kinking the antenna mast.



### Stampede

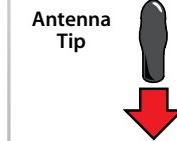


### SETTING UP THE ANTENNA

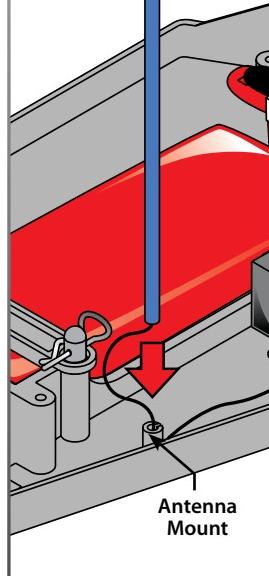
You must install the antenna mast (tube) before you operate your model. You'll find the plastic antenna tube and tip in the bag with your manuals and documentation.

1. Locate the black antenna wire that exits the receiver.
2. Pull the wire straight with your fingers several times until it is straight (no kinks or bends) and then insert the end of the wire into one end of the antenna tube. Push the wire all the way through the antenna tube.
3. Pull the remaining wire through the antenna tube, and then insert the base of the antenna tube into the molded post on the chassis.
4. Fold the remaining antenna wire over the top of the tube and secure it with the antenna tip.
5. On the transmitter, always fully extend the telescoping antenna when running your model. Make a habit of holding the transmitter so that the antenna points straight up.

### Rustler and Bandit



### Antenna Tube



### Antenna Mount

**TQ RADIO SYSTEM CONTROLS****TQ RADIO SYSTEM ADJUSTMENTS**

In addition to the electronic throttle and steering trim controls, your radio system features throttle neutral adjustment and servo reversing switches. **These are preset at the factory and should not require further adjustment.**

**Throttle Neutral Adjustment**

The throttle neutral adjustment is located on the transmitter face and controls the forward/reverse travel of the throttle trigger. Change the adjustment by pressing the button and sliding it to the desired position.

There are two settings available:

**50/50:** Allows equal travel for both acceleration and reverse.

**70/30:** Allows more throttle travel (70%) and less reverse travel (30%).

**Note:** If you change throttle travel, you will need to reprogram the electronic speed control.

**Electronic Throttle Trim**

The electronic throttle trim located on the face of the transmitter adjusts the neutral (center) point of the throttle servo when the servo is at rest. If your model uses an electronic speed control instead of a throttle servo, this control has been preset for you at the factory.

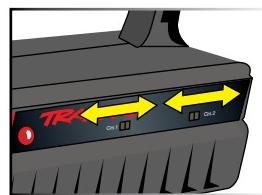
**Electronic Steering Trim**

The electronic steering trim located on the face of the transmitter adjusts the neutral (center) point of the steering servo when the servo is at rest. Adjust this control to make the model drive straight with no steering input at the wheel.

**Servo Reversing Switches**

The servo reversing switches are located on the front of the transmitter, next to the on/off switch. Moving a switch reverses the direction of the corresponding servo.

Each switch corresponds to a channel, as shown below. For example, if you turn the steering wheel to the right and your wheels turn left, you would move the Channel 1 switch to correct the servo direction. It may be necessary to adjust the corresponding trim control after moving a switch.



Channel	Servo
1	Steering
2	Throttle
Default Setting	



**Remember,** always turn the TQ transmitter on first and off last to avoid damage to your model.



Your speed control was adjusted to the radio from the factory. It is possible for the throttle trim control on the transmitter to have moved during transit or while handling the transmitter. If the motor runs when the model is switched on, then move the throttle trim control on the transmitter until the motor stops. If anything more than a slight adjustment of the throttle trim control is required, then you should readjust your speed control. Refer to the adjustments section on page 17.

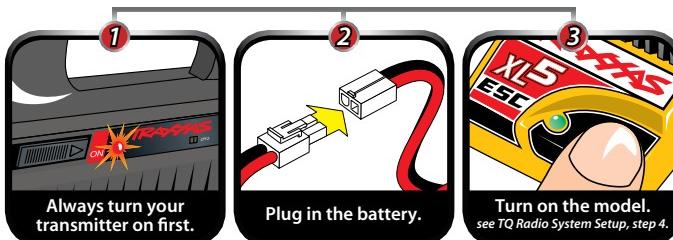
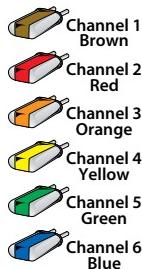


When rechargeable batteries begin to lose their charge, they will fade much faster than alkaline dry cells. Stop immediately at the first sign of weak batteries. Never turn the transmitter off when the battery pack is plugged in. The model could run out of control.



### TQ RADIO SYSTEM RULES

- Each time you prepare to run your model, you must clear your frequency to be sure no one else in the area is using the same channel as you. There are six possible channels, numbered 1 through 6. Each is represented by a color. Look at the crystal plugged into the back of your transmitter to determine which channel your model is assigned to.
- Always turn your TQ transmitter on first and off last. This procedure will help to prevent your model from receiving stray signals from another transmitter, or other source, and running out of control.
- Always have the transmitter turned on before plug in the battery.
- Always use new or freshly charged batteries for the radio system. Weak batteries will limit the range of the radio signal between the receiver and the transmitter. Loss of the radio signal can cause you to lose control of your model.



### TQ RADIO SYSTEM SETUP

The TQ Radio System was pre-adjusted at the factory. The adjustment should be checked, before running the model, in case of movement during shipping. Here's how:

1. Fully extend the chrome antenna mast on the transmitter and turn the switch on. The red indicator light on the transmitter should be solid red (not flashing).
2. **Elevate the model so that the rear tires are off the ground.** If you are holding the model, grip it firmly. Make sure your hands are clear of the moving parts of the model.

3. Plug the battery pack in the model into the speed control.

4. **XL-5 Electronic Speed Control Models** - The on/off switch is integrated into the speed control. With the transmitter on, press the XL-5 set button for ½ second, until the LED shines GREEN, then immediately release the button. This turns the model on (see page 17 for more on XL-5 setup and operation). To turn the XL-5 off, press the set button until the green LED turns off.
5. Turn the steering wheel on the transmitter back and forth and check for rapid operation of the steering servo. Also, check that the steering mechanism is not loose or binding. If the steering operates slowly, check for weak batteries.
6. When looking down at model, the front wheels should be pointing straight ahead. If the wheels are turned slightly to the left or right, slowly adjust the steering trim control on the transmitter until they are pointing straight ahead.
7. Operate the throttle trigger to ensure that you have full forward and reverse operation, and that the motor stops when the throttle trigger is at neutral.
8. Once adjustments are made, turn off your model, followed by the hand held transmitter.

### RANGE-TESTING THE TQ RADIO SYSTEM

Before each running session with your model, you should range-test your radio system to ensure that it operates properly.

1. Turn on the radio system and check its operation as described in the previous section.
2. Have a friend hold the model. Make sure hands and clothing are clear of the wheels and other moving parts on the model.
3. Make sure your transmitter antenna is fully extended, and then walk away from the model with the transmitter until you reach the farthest distance you plan to operate the model.
4. Operate the controls on the transmitter once again to be sure that the model responds correctly.
5. Do not attempt to operate the model if there is any problem with the radio system or any external interference with your radio signal at your location.

**XL-5 electronic speed controls are factory set and should not require any adjustments. These instructions are provided for your reference.**

## Transmitter Adjustments for the XL-5 ESC

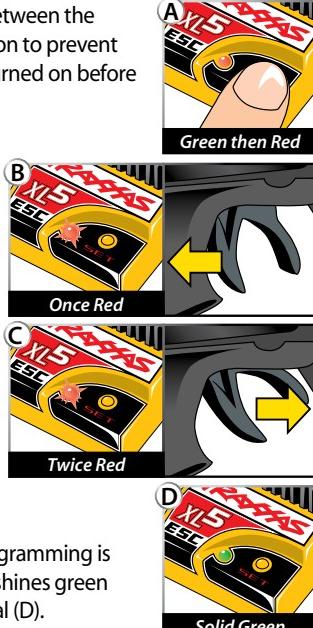
Before attempting to program your XL-5 ESC, it is important to make sure that your transmitter is properly adjusted (set back to the factory defaults). Otherwise, you may not get the best performance from your speed control.

### The transmitter should be adjusted as follows:

1. Set the throttle neutral switch to the 50/50 setting.
2. Set the throttle trim to the middle "0" setting. This adjusts the neutral position.
3. Set the Channel 2 servo reversing switch to the left position.
4. Do not change the position of any of the servo reversing switches after programming the XL-5 ESC.

## XL-5 Setup Programming (Calibrating your ESC and transmitter)

Read through all of the programming steps before you begin. If you get lost during programming or receive unexpected results, simply unplug the battery, wait a few seconds, plug the battery back in, and start over.

1. Disconnect one of the motor wires between the XL-5 and the motor. This is a precaution to prevent runaway when the speed control is turned on before it is programmed.
  2. Connect a fully charged battery pack to the XL-5.
  3. Turn on the transmitter (with the throttle at neutral).
  4. Press and hold the ESC set button (A). The LED will first turn green and then red. Release the set button.
  5. When the LED blinks RED ONCE. Pull the throttle trigger to the full throttle position and hold it there (B).
  6. When the LED blinks RED TWICE. Push the throttle trigger to the full reverse and hold it there (C).
  7. When the LED turns solid GREEN, programming is complete. The LED will continuously shines green indicating the XL-5 is on and at neutral (D).
- 

## XL-5 Operation

To operate the speed control and test the programming, reconnect the motor wires and place the vehicle on a stable block or stand so that all of the driven wheels are off the ground.

1. With the transmitter on, press the set button for ½ second, until the LED shines GREEN, then immediately release the button. This turns the XL-5 on. If you press and release too quickly, you may hear the steering servo jump but the LED may not stay on. Simply press the button again until the LED shines GREEN and then release. (Note: If the throttle is not at neutral or if the throttle trim has been altered, the LED will turn off after one second and the wheels may begin to drive.)
2. Apply forward throttle. The LED will turn off until full throttle power is reached. At full throttle, the led will shine GREEN.
3. Move the trigger forward to apply the brakes. Note that braking control is fully proportional. The LED will turn off until full braking power is reached. At full brakes, the LED will shine GREEN.
4. Return the throttle trigger to neutral. The LED will shine GREEN.
5. Move the throttle trigger forward again to engage reverse (Profile #1). The LED will turn off. Once full reverse power is reached, the LED will shine GREEN.
6. To stop, return the throttle trigger to neutral. Note that there is no programmed delay when changing from reverse to forward. Use caution to avoid slamming the speed control from reverse to forward. On high-traction surfaces, this could result in transmission or driveline damage.
7. To turn the XL-5 off, press the set button until the green LED turns off.

## Thermal Shutdown Protection

The XL-5 is equipped with thermal shutdown protection to guard against overheating caused by excessive current flow. If the operating temperature exceeds safe limits, the XL-5 will automatically shut down. The LED on the face of the XL-5 will continuously shine green, even if the throttle trigger is moved back and forth. Once the temperature returns to a safe level, the XL-5 will once again function normally.

## XL-5 Profile Selection

The speed control is factory set to Profile #1 (100% forward, brakes, and reverse). To disable reverse (Profile #2) or to allow 50% forward and 50% reverse (Profile #3), follow the steps on page 18. The speed control should be connected to the receiver and battery, and the transmitter should be adjusted as described previously. The profiles are selected by entering the programming mode.



## XL-5 Specifications

**Input voltage:**  
4 to 8 cells (4.8 to 9.6V)

**Motor limit:**  
15-turns (540)  
12-turns (550)

**Peak current - fwd/rev:**  
60A/60A

**Braking current:**  
60A

**BEC voltage:**  
6V

**Transistor type:**  
MOSFET

## XL-5 Wiring Diagram





**Patent-Pending Training Mode (Profile #3) reduces forward and reverse throttle by 50%. Training Mode is provided to reduce the power output allowing beginning drivers to better control the model. As driving skills improve, simply change to Sport or Race Mode for full-power operation.**



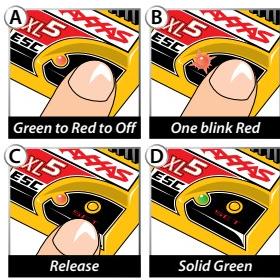
**Tip For Fast Mode Changes**  
The XL-5 is set to Profile 1 (Sport Mode) as the default. To quickly change to Profile 3 (Training Mode), with the transmitter on, press and hold the SET button until the light blinks red three times and then release. For full power, quickly change back to Profile 1 (Sport Mode) by pressing and holding the SET button until the light blinks red one time and then releasing.

### Profile Description

Profile #1 (Sport Mode): 100% Forward, 100% Brakes, 100% Reverse  
Profile #2 (Race Mode): 100% Forward, 100% Brakes, No Reverse  
Profile #3 (Training Mode): 50% Forward, 100% Brakes, 50% Reverse

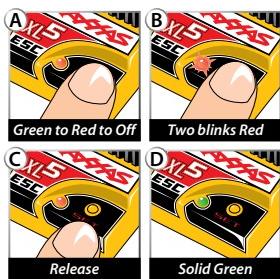
### Selecting Sport Mode (Profile #1: 100% Forward, 100% Brakes, 100% Reverse)

1. Connect a fully charged battery pack to the XL-5 and turn on your transmitter.
2. With the XL-5 off, press and hold the set button until the light turns solid green, then solid red and then begins blinking red (indicating the Profile numbers).
3. When the light blinks red once, release the set button.
4. The light will then turn green and the model is ready to drive.



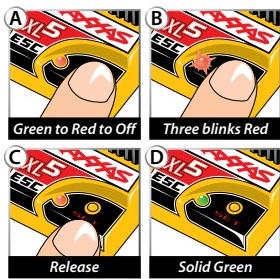
### Selecting Race Mode (Profile #2: 100% Forward, 100% Brakes, No Reverse)

1. Connect a fully charged battery pack to the XL-5 and turn on your transmitter.
2. With the XL-5 off, press and hold the set button until the light turns solid green, then solid red and then begins blinking red (indicating the Profile numbers).
3. When the light blinks red twice, release the set button.
4. The light will then turn green and the model is ready to drive.



### Selecting Training Mode (Profile #3: 50% Forward, 100% Brakes, 50% Reverse)

1. Connect a fully charged battery pack to the XL-5 and turn on your transmitter.
2. With the XL-5 off, press and hold the set button until the light turns solid green, then solid red and then begins blinking red (indicating the Profile numbers).
3. When the light blinks red three times, release the set button.
4. The light will then turn green and the model is ready to drive.



**Note:** If you missed the mode you wanted, keep the SET button pressed down and the blink cycle will repeat until a Mode is selected.

### General Precautions

- **Water and Electronics Do Not Mix:** Do not operate the model in or around water. Never allow water, moisture, or other foreign materials to get inside the speed control.
  - **Disconnect the Batteries:** Always disconnect the battery pack from the speed control when not in use.
  - **Transmitter on First:** Switch on your transmitter first before switching on the speed control to prevent runaways and erratic performance.
  - **Don't Get Burned:** The transistor tabs and the heat sinks can get extremely hot, so be careful not to touch them until they cool. Supply adequate airflow for cooling.
  - **Always Use Heat Sinks:** Three heat sinks are factory-installed on the speed control and must be used for maximum cooling and performance.
  - **4 to 8-Cells Only:** The XL-5 can only accept a maximum input voltage of 9.6 volts. Always adhere to the minimum and maximum limitations of the XL-5 as stated in the specifications table.
  - **Use Stock Connectors:** If you decide to change the battery or motor connectors, only change one battery or motor connector at a time. This will prevent accidentally mis-wiring the speed control. If the XL-5 is not wired exactly as shown in the diagram, it can be damaged! Please note that modified speed controls can be subject to a rewiring fee when returned for service.
  - **No Reverse Voltage:** The speed control is not protected against reverse polarity voltage. When changing the battery and/or motor, be sure to install the same type of connectors to avoid reverse polarity damage to the speed control. Removing the battery connectors on the speed control or using the same-gender connectors on the speed control will void the product's warranty.
  - **Do Not Let the Transistor Tabs Touch:** Never allow the three separate transistor banks to touch each other or any exposed metal. This will create a short circuit and damage the speed control. (For example, laying a metal tool across the heatsinks can damage the speed control.)
- Advanced Precautions**
- **Motor Limit:** The XL-5 has a 15-turn modified motor limit for 540 size motors and a 12-turn modified motor limit for 550 size motors when the motor is properly geared. If the motor or speed control is overheating, try a smaller pinion gear. Do not attempt to use a more powerful motor (fewer turns) than the above mentioned motor limits or you could experience frequent thermal shutdown.
  - **Insulate the Wires:** Always insulate exposed wiring with heat shrink tubing to prevent short circuits.
  - **Use Neutrally Timed Motors:** For reverse use, the motors must have 0° timing. Modified motors (with adjustable end bells) timed to 0° or Johnson/Mabuchi (closed end bell) motors are recommended. Using motors with other than 0° timing will draw excess current in reverse, and can result in the speed control overheating and premature motor wear.
  - **Motor Capacitors Required:** Ceramic capacitors should be properly installed on every motor to prevent radio interference. These are already installed on the factory Titan motor.
  - **No Schottky Diodes:** External schottky diodes are not compatible with reversing speed controls. Using a schottky diode with the XL-5 will damage the ESC and void the 30-day warranty.

Now it's time to have some fun! This section contains instructions on driving and making adjustments to your model. Before you go on, here are some important precautions to keep in mind.

- ☛ Allow the model to cool for a few minutes between runs. This is particularly important when using high capacity (2400mAh and above) battery packs that allow extended periods of running. Monitoring temperatures will extend the lives of the batteries and motors.
- ☛ The radio system is not waterproof. Avoid driving through puddles, mud, or snow. If water gets into the electronics it could damage them.
- ☛ Do not continue to operate the model with low batteries or you could lose control of it. Indications of low battery power include slow operation and sluggish servos (slow to return to center). Stop immediately at the first sign of weak batteries. When the batteries in the transmitter become weak, the red power light will begin to flash. Stop immediately and install new batteries.
- ☛ Do not drive the model at night, on public streets, or in large crowds of people.
- ☛ If the model becomes stuck against an object, do not continue to run the motor. Remove the obstruction before continuing. Do not push or pull objects with the model.
- ☛ Because the model is controlled by radio, it is subject to radio interference from many sources beyond your control. Since radio interference can cause momentary losses of control, allow a safety margin of space in all directions around the model in order to prevent collisions.
- ☛ Use good, common sense whenever you are driving your model. Intentionally driving in an abusive and rough manner will only result in poor performance and broken parts. Take care of your model so that you can enjoy it for a long time to come.
- ☛ When using the supplied optional pinions for top speed running, limit your driving to paved surfaces only. Running in grass and off-road could cause excessive loads on the electrical system in the model.

☛ The Titan 12T motor will benefit from a short break in period to ensure optimum performance and longer motor life. For the first battery pack, use the stock installed pinion gear and drive smoothly on a flat, paved surface. Accelerate smoothly (avoiding full throttle starts), with most of the driving being done at higher speeds. This will help insure that the motor provides the best performance and longest life.

### About Run Time

A large factor affecting run time is the type and condition of your batteries. The milliamp hour (mAh) rating of the batteries determines how large their "fuel tank" is. A 3000 mAh battery pack will theoretically run twice as long as a 1500 mAh sport pack. Because of the wide variation in the types of batteries that are available and the methods with which they can be charged, it's impossible to give exact run times for the model.

Another major factor which affects run time is how the model is driven. Run times may decrease when the model is driven repetitively from a stop to top-speed and with repetitive hard acceleration.

### Tips for Increasing Run Time

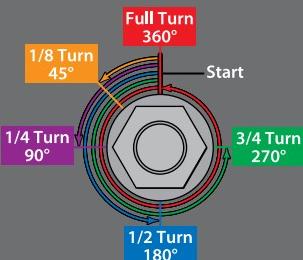
- ☛ Use batteries with the highest mAh rating you can purchase.
- ☛ Use a high-quality peak-detecting charger.
- ☛ Read and follow all maintenance and care instructions provided by the manufacturer of your batteries.
- ☛ Vary your speed. The Titan12T is a fan cooled motor, therefore moderate to top-speed running helps reduce motor temperatures.
- ☛ Lower your gear ratio. Installing a smaller pinion gear will lower your gear ratio, causing less power draw from the motor.
- ☛ Maintain your model. Do not allow dirt or damaged parts to cause binding in the drivetrain. Keep the motor clean and the motor bushings lightly lubricated.



## ADJUSTING YOUR MODEL



To achieve a good starting point for the slipper clutch in these models, tighten the slipper clutch adjusting nut clockwise until the slipper clutch adjusting spring fully collapses (do not over tighten), and then turn the slipper clutch nut counter-clockwise one full turn.

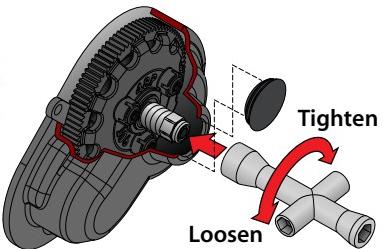


Do not run your model with the slipper clutch adjusting spring fully compressed. The minimum recommended slipper clutch setting is 1/2 turn counter-clockwise from fully compressed.

Once you become familiar with driving your model, you might need to make adjustments for better driving performance

### Adjusting the Slipper Clutch

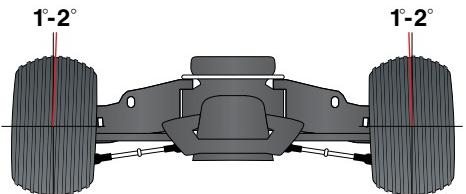
The model is equipped with an adjustable slipper clutch which is built into the large spur gear. The purpose of the slipper clutch is to regulate the amount of power sent to the rear wheels to prevent tire spin. When it slips, the slipper clutch makes a high-pitch, whining noise. Remove the rubber slipper clutch plug on the transmission cover in order to adjust the slipper. Use the 4-way wrench to turn the adjusting nut clockwise to tighten and counter-clockwise to loosen. Place the model on a high-traction surface, such as carpet. Adjust the slipper so that you can hear it slip for approximately two feet from a standing, full throttle start. (Learn more about adjusting the slipper clutch in the sidebar left.)



### Adjusting the Toe-in

Geometry and alignment specs play an important roll in your model's handling. Take the time to set them correctly. Set the steering trim on your transmitter to neutral. Now, adjust your servo and tie rods so that both wheels are pointing straight ahead and are parallel to each other (0-degrees toe-in). This will ensure the same amount of steering in both directions.

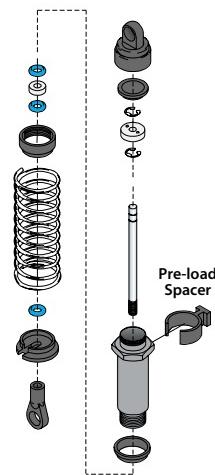
For increased stability add one- to two-degrees of toe in to each front wheel. Use the turnbuckles to adjust the alignment.



### Fine Tuning the Shocks

The four shocks on the model greatly influence its handling. Whenever you rebuild your shocks, or make any changes to the pistons, springs or oil, always make changes to them in pairs (front or rear). Piston selection depends on the range of oil viscosities that you have available. For example, using a two-hole piston with a

lightweight oil will, at one point, give you the same dampening as a three-hole piston with heavier oil. We recommend using the two-hole pistons with a range of oil viscosities from 10W to 50W (available from your hobby shop). The thinner viscosity oils (30W or less) flow more smoothly and are more consistent, while thicker oils provide more dampening. Use only 100% pure silicone shock oil to prolong seal life. The model's ride height can be adjusted by adding or removing the clip-on, spring pre-load spacers. Adjust the ride height so that the suspension arms are slightly above being parallel to the ground. Observe how the model handles in turns. Proper set-up will add stability and help prevent spin outs. Experiment with different springs and shock oils to find what works best for your current track conditions.



### Wheels and Tires

Many types of aftermarket tires and wheels can be adapted for use on your model. Most will affect the overall width and the suspension geometry of the model. The offsets and dimensions designed into the model's wheels are intentional; therefore, Traxxas cannot recommend the use of other non-Traxxas wheels with different specifications. The diameter of the wheels is an innovative design, and there is a variety of different tires available for you to experiment with in addition to the included tires on the model (listed in your parts list). Experimentation with different types of tires is recommended to see which ones work the best on the terrain where the model is run. When selecting tires, consider the overall diameter and the rubber compound (hard or soft). If the overall diameter of the tire is significantly increased, you will need to use a smaller pinion gear to compensate for the larger tire. Soft compound tires with many short spikes generally work better on hard, dry surfaces. In loose dirt, a tire with large spikes should perform better. See your parts list for accessory wheels and tires.

### Motors and Gearing

There are two different types of aftermarket motors which can be purchased for your model, stock and modified. Stock motors all have the same wire thickness and number of turns around the armature as governed by sanctioned racing organizations. They are inexpensive, and widely available. Modified motors are more expensive, may feature ball bearings and come in a variety of wire

thicknesses and number of turns of wire on the armature. The fewer number of turns of wire on the armature, the more powerful the motor will be. Keep in mind that the more powerful the motor, the less battery run time you will have.

One of the more significant advantages to your model's transmission is the extremely wide range of available gear ratios. It can be geared low enough to run extremely hot, modified motors. Modified motors should be geared lower (higher numerically) than stock motors because they reach their maximum power at higher RPM's.

A modified motor that is geared incorrectly can actually be slower than a correctly-gearred, stock motor. Use the following formula to calculate the overall ratio for combinations not listed on the gear chart:

$$\begin{array}{l} \text{\# Spur Gear Teeth} \\ \times 2.72 = \text{Final Gear Ratio} \\ \\ \text{\# Pinion Gear Teeth} \end{array}$$

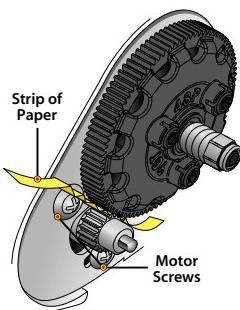
If you are worried that you might be over-gear'd, check the temperature of the battery pack and motor. If the battery is extremely hot, and/or the motor is too hot to touch, your model is probably over-gear'd. If you are not able to run your model for at least four minutes before the battery dies, then change to a lower gear ratio. This temperature test assumes that the model is close to factory stock weight and operates freely with no excessive friction, dragging, or binding, and the battery is fully charged and in good condition.

The model is equipped with a Titan 12T 550 motor. The gear combination that comes stock on each model provides good overall acceleration and top speed. If you want more top speed and less acceleration install the included optional large pinion gear (more teeth). If you want more acceleration and less top speed, use a smaller optional (not included) pinion gear. **The included optional large pinion gear is intended for high-speed running on hard surfaces, and this gearing is not recommended for off-road or repetitive starting and stopping.**

	Rustler	Stampede	Bandit
• Fast Acceleration • Short Distances • Small Tracks	19-Tooth Pinion* 86-Tooth Spur	16-Tooth Pinion* 86-Tooth Spur	26-Tooth Pinion 86-Tooth Spur*
• Good Acceleration • Good Speed • Normal Conditions	23-Tooth Pinion 86-Tooth Spur	19-Tooth Pinion 86-Tooth Spur	26-Tooth Pinion 76-Tooth Spur
• High Top Speed • Long Distances • Hard Surfaces	28-Tooth Pinion 86-Tooth Spur	23-Tooth Pinion 86-Tooth Spur	31-Tooth Pinion 76-Tooth Spur

\*optional (sold separately)

The Titan 12T is equipped with an integrated cooling fan that is effective during medium to high-speed operation. The gearbox is specially vented to cool the motor. Repetitive starting and stopping over short distances creates excess heat and will not allow the fan to cool the motor properly. For this type of driving, smaller pinion gears are recommended to reduce load on the motor. See the guide below.



### Adjusting Gear Mesh

Incorrect gear mesh is the most common cause of stripped spur gears. To set the gear mesh, cut a narrow strip of notebook paper and run it into the gear mesh. Loosen the motor screws and slide the motor and pinion gear into the spur gear. Retighten the motor screws and then remove the strip of paper. You should be able to run a fresh strip of paper through the gears without binding them.

### Centering Your Servo

If the trim controls on your transmitter seem off, you may need to recenter your servo. Additionally, whenever your servo has been removed for service or cleaning, it must be re-centered prior to installation in the model.

1. Disconnect the servo horn from the steering servo.
2. Connect the steering servo to channel 1 on the receiver. Connect the electronic speed control (ESC) to channel 2. The white wire on the servo lead is positioned towards the crystal.
3. Place fresh "AA" batteries in the transmitter and turn the transmitter power switch on.
4. Turn the throttle and steering trim adjustments on the transmitter to the center "0" position.
5. Elevate the rear wheels of the model. Connect a fresh 7.2V battery pack to the speed control and turn on the ESC (see page 16). The servo will automatically jump to its center position.
6. Turn off the power to the model followed by the transmitter. The servo horn is now ready to be installed.
7. Be careful not to move the servo shaft when installing the servo horn. Readjust the ESC as described in the "Adjusting the Speed Control" section.

### Gearing Compatibility Chart:

The chart below shows a full range of gear combinations. This does NOT imply that these gear combinations should be used. Over-gearing (bigger pinions, smaller spurs) can overheat and damage the motor and/or speed control. Items in black will fit 540 motors only (not Titan 12T). Items in color show the acceptable ranges for each model (see key below).

Spur Gear

	76	83	86	90	
Pinion Gear	12	-	-	19.50	20.40
13	-	-	-	18.01	18.82
14	-	-	-	16.70	17.49
15	-	15.04	15.58	16.32	
16	-	14.12	14.63	15.31	
17	-	13.27	13.76	14.39	
18	-	12.54	13.00	13.60	
19	-	11.89	12.32	12.89	
20	-	11.28	11.69	12.24	
21	-	10.75	11.14	11.66	
22	9.38	10.25	10.63	11.12	
23	8.97	9.82	10.17	10.63	
24	8.62	9.41	9.74	10.20	
25	8.27	9.03	9.36	9.79	
26	7.94	8.67	9.00	-	
27	7.64	8.35	8.67	-	
28	7.37	8.05	8.35	-	
29	7.12	7.78	8.08	-	
30	6.88	7.53	-	-	
31	6.66	7.29	-	-	
32	6.47	7.04	-	-	
33	6.26	-	-	-	
34	6.09	-	-	-	
35	5.90	-	-	-	

Key:	Rustler
Stampede	Bandit/Rustler
Stampede/Rustler	Bandit

## MAINTAINING YOUR MODEL



Always wear eye protection when using compressed air or spray cleaners and lubricants.

Your model requires timely maintenance in order to stay in top running condition. **The following procedures should be taken very seriously.**

### Inspect the vehicle for obvious damage or wear. Look for:

1. Cracked, bent, or damaged parts
2. Check the wheels and steering for binding.
3. Check the operation of the shock absorbers.
4. Check the wiring for any frayed wires or loose connections.
5. Check the mounting of the receiver and servo(s) and speed control.
6. Check the tightness of the wheel nuts with a wrench.
7. Check the operation of the radio system, especially the condition of the batteries.
8. Check for any loose screws in the chassis structure or suspension.
9. The steering servo saver will wear out over time. If the steering becomes loose, the servo saver should be replaced.
10. Inspect the gears for wear, broken teeth, or debris lodged between the teeth.
11. Check the tightness of the slipper clutch.

### Other periodic maintenance:

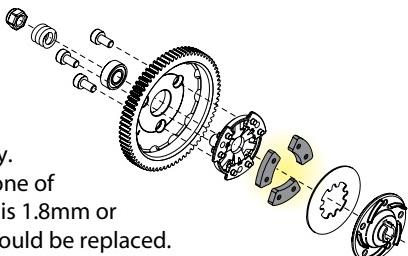
#### • Slipper clutch pads

(friction material):

Under normal use, the friction material in the slipper clutch should wear very slowly.

If the thickness of any one of the slipper clutch pads is 1.8mm or less, the friction disc should be replaced.

Measure the pad thickness using calipers or measuring against the diameter of the 1.5 and 2.0mm hex wrenches provided with the model.



• **Chassis:** Keep the chassis clean of accumulated dirt and grime. Periodically inspect the chassis for damage

• **Steering:** Over time, you may notice increased looseness in the steering system. There are several components which will wear out from use: the servo saver (Traxxas part #3744), the bellcrank bushings (Traxxas part #2545), and the tie rod ends (Traxxas part

#2742). Replace these components as needed to restore factory tolerances. The bellcrank bushings (Rustler and Bandit only) may be replaced with 5x8mm ball bearings (Traxxas part #2728).

• **Motor:** Every 10-15 runs, remove, clean, and lubricate the motor. Use a product such as electric motor cleaning spray to flush dirt out of the motor. After cleaning, lubricate the bushings at each end of the motor with a drop of light-weight electric motor oil.

• **Shocks:** Keep the oil level in the shocks full. Use only 100% pure silicon shock oil to prolong the life of the seals. If you are experiencing leakage around the top of the shock, inspect the bladder in the top cap for signs of damage or distortion from overtightening. If the bottom of the shock is leaking, then it is time for a rebuild. The Traxxas rebuild kit for two shocks is part #2362.

• **Suspension:** Periodically inspect the model for signs of damage such as bent or dirty suspension pins, bent turnbuckles, loose screws, and any signs of stress or bending. Replace components as needed.

• **Driveline:** Inspect the driveline for signs of wear such as worn drive yokes, dirty axle half shafts, and any unusual noise or binding. If a u-joint pops apart then it is time to replace the part. Remove the gear cover and inspect the spur gear for wear and check the tightness of set screws in the pinion gears. Tighten, clean, or replace components as needed.

### Storage

When you are through running the model for the day, blow it off with compressed air or use a soft bristled paint brush to dust-off the vehicle.

Always disconnect and remove the battery from the model whenever the model is stored. If the model will be stored for a long time, then also remove the batteries from the transmitter.

## TROUBLESHOOTING

The following section addresses some very basic ESC and radio questions you may have about your model. Most questions arise from simple user errors or minor adjustments that are easy to correct. If you can't find a solution for your model here, then visit our website at [www.Traxxas.com/support](http://www.Traxxas.com/support). There you will find a much more extensive and detailed online troubleshooting area. In addition, you may call Traxxas Customer Service at 1-888-TRAXXAS (outside the US call 972-265-8000).

### Radio system does not work properly:

- ⦿ If the power light on the transmitter does not come on, check for proper battery installation and that the batteries are new and/or fully charged. If the power light is blinking, then the transmitter batteries are weak and should be replaced. See page 13 for more details.
- ⦿ If the transmitter light is on but the radio is still not responding, check for proper installation of batteries in the model and that the batteries are new and/or fully charged. Check to make sure the on/off switch on the model is in the on position. Check for damaged wires, a loose crystal, or loose connections. See page 13 for more details.

### Short radio range:

- ⦿ If the radio range appears short, then first check to make sure the transmitter antenna is fully extended and that the antenna in the model is in place and has not been cut or damaged. Next, make sure the batteries are all fully charged. Finally, if you are still experiencing short range, try a different location. Sometimes there can be interference from various sources that can cause your radio to malfunction.

### Steering channel works but the motor will not run:

- ⦿ The speed control has thermally shut down (see page 18). Allow the speed control to cool down. Use a milder motor or a smaller pinion gear. Check the drive train for restrictions. Check the motor connections. Check the motor.
- ⦿ Make sure the speed control is plugged into the throttle channel of the receiver. Check operation of the throttle channel with a servo.
- ⦿ Bad battery or motor. Check the operation with known good battery and motor.
- ⦿ XL-5: Possible internal damage. Return the XL-5 to Traxxas for service.

### Motor and steering servo do not work:

- ⦿ Check the wires, radio system, crystals, battery and motor connectors, and the battery pack.
- ⦿ Possible internal damage. Return the XL-5 to Traxxas for service.

### Motor runs backwards:

- ⦿ Motor wired backwards - Check the wiring and correct.

### XL-5 will not go into programming mode:

- ⦿ Make sure the XL-5 is plugged into Channel 2 (the throttle channel) on the receiver. If it is plugged into the battery terminal, it will not go into programming mode.
- ⦿ Be sure the XL-5 is turned off before trying to program or select a profile.
- ⦿ Unplug battery, reconnect, and repeat programming instructions on page 17.

### Receiver glitches/throttle stutters during acceleration:

- ⦿ Motor capacitors broken or missing - Check and replace capacitors.
- ⦿ The receiver or antenna is too close to power wires or the batteries.
- ⦿ Bad connections - Check the wiring and connectors.
- ⦿ Motor worn - Replace the motor.
- ⦿ Excessive current to motor - Use a milder motor or a smaller pinion gear.

### Model runs slowly / slow acceleration:

- ⦿ Check the motor and battery connectors.
- ⦿ Check to see if XL-5 is in Profile #3 (50% throttle)
- ⦿ Bad battery or motor. Check the operation with known good battery and motor.
- ⦿ Incorrect transmitter or speed control adjustment. Refer to the "TQ Radio System Adjustments" (page 15) and "Adjusting the Electronic Speed Control" (page 17) sections.

### Model will not go in reverse:

- ⦿ Make sure the throttle trim is in the correct position (green light on XL-5 should be solid)
- ⦿ Check for correct XL-5 profile (Profile #2 does not have reverse).

### Motor runs as soon as the battery is plugged in:

- ⦿ Before turning on XL-5: Internal damage, return XL-5 to Traxxas for service.

### Keep stripping spur gears:

- ⦿ Improper gear mesh, refer to "Adjusting Gear Mesh" on page 21.
- ⦿ Improperly adjusted slipper clutch, refer to "Adjusting the Slipper Clutch" on page 20.



# **RUSTLER**

# **BANDIT**

# **STAMPEDE**

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